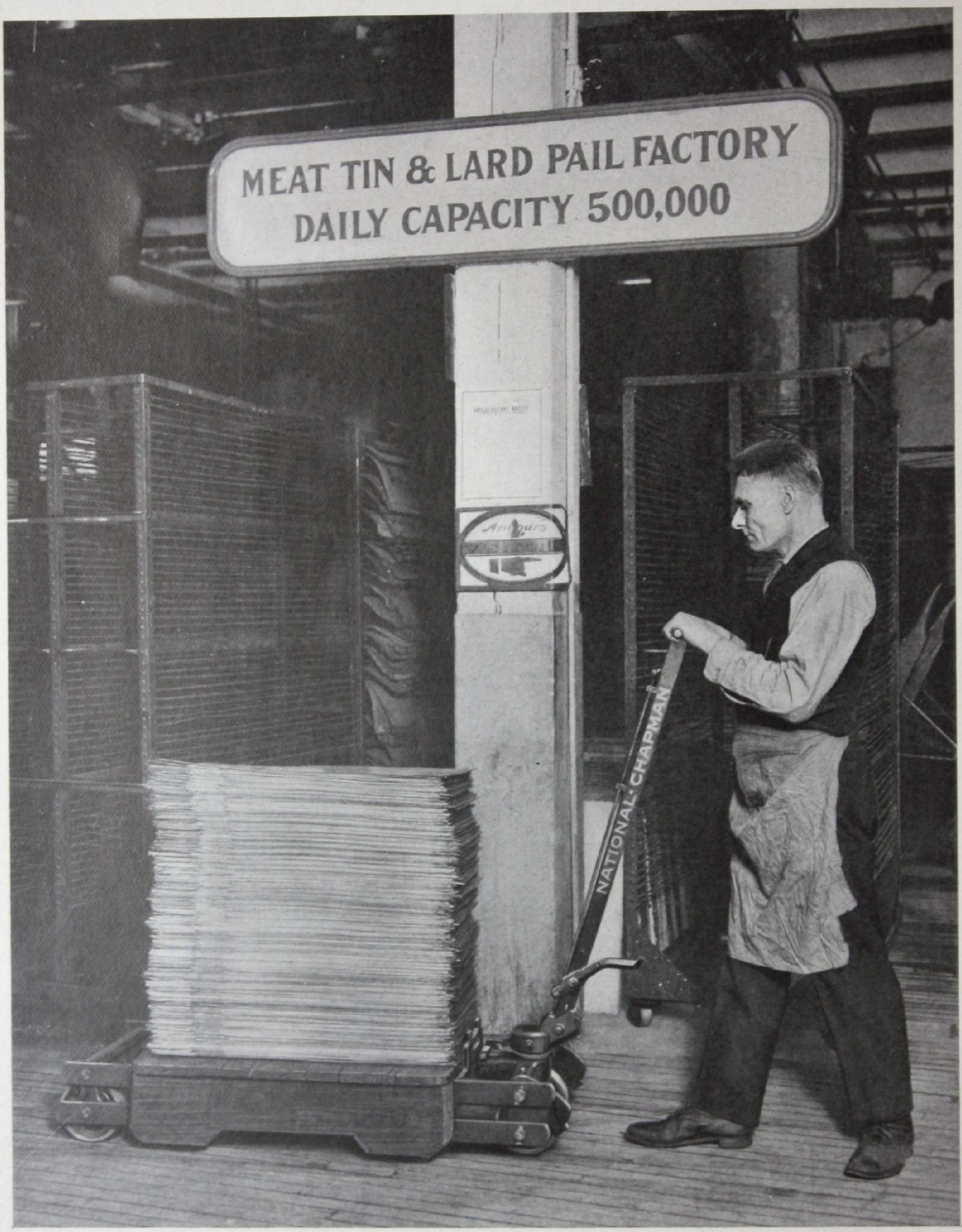
NATIONAL-CHAPMAN ELEVATING TRUCKS



HANDLING 3000 lbs. of Tin Plate on a National-Chapman Elevating Truck in the Meat Packing Plant of Armour & Co., Chicago, Ill.

THEIR COST CUTTING ADVANTAGES

IT has repeatedly been proven by tests that the old fashioned method of shop trucking with fixed-platform trucks wastes fully 75% of the operators' time. This is true for the reason that these trucks require loading by hand and continual unloading again to keep them in service.

The basic idea back of the National-Chapman Elevating Truck is the absolute divorcement of running gear and load platform and the utilization of a large number of detached wooden skids, which can readily be built in any factory carpenter shop.

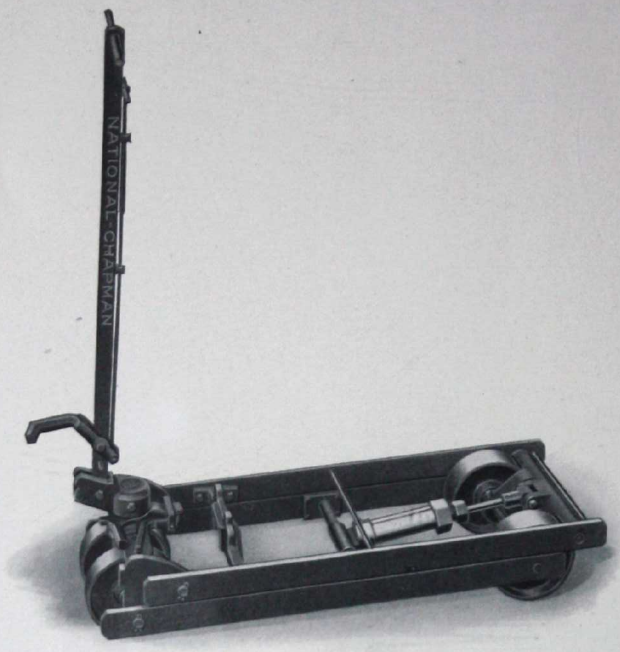
The National-Chapman makes each one of these skids serve the purpose of a many times more expensive platform truck, besides providing a means by which material in process of manufacture may be routed through the plant from department to department and machine to machine with little or no handling on the part of the operator. Incoming stock, finished and unfinished stores or goods in shipping or storage rooms can be placed on and remain on skids and be shifted from place to place with a minimum of handling.

Perhaps the National-Chapman Elevating Truck can best be described as a trucking "switch engine," having all the economical advantages of its big brother of the railroad.

It will readily be appreciated that the National-Chapman System of Trucking cannot help but have a very definite influence on production through its quicker, more efficient service to machines. In addition, the unusual adaptability of the skid idea to many forms of convenient racks, crates, containers, etc., machine high or otherwise, does much to reduce the number of time consuming motions in handling material on the machines.

Platforms are cheap, labor cost is ever growing. National-Chapman Elevating Trucks have enabled hundreds of manufacturers to multiply inexpensive platforms instead of fixed-platform trucks and to save the labor cost of from one to three men or more for each National-Chapman Elevating Truck installed.

On the following pages we describe National-Chapman Elevating Trucks in detail, their various sizes, and their structural and mechanical advantages.



Standard Model

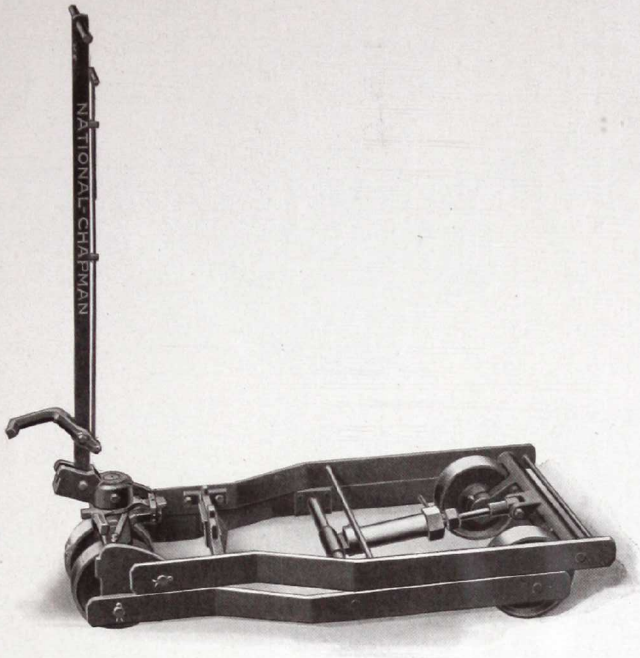
THE NATIONAL–CHAPMAN ELEVATING TRUCK is a specially constructed, roller-bearing chassis with powerful side bars, the top bars being the lifting bars.

When the truck is rolled under a loaded wooden skid, and the handle is thrust downward, the lifting bars raise skid and load off the floor, ready for hauling away.

When elevated, the supporting bars assume a fixed position and remain rigidly locked together until released by a pull on the rod attached to the handle, which is known as the Handle Release Lever, or by use of the " kick off " lever attached to the chassis. In descending, a powerful hydraulic check eases the heaviest load to the floor without a jar or damage to material or floor. The truck is then pulled out from under the skid and is ready for another load.

The Standard Model National-Chapman Elevating Truck is built in 12 sizes with carrying capacities ranging from 2000 to 4000 lbs.

See page 30 for a description of the special mechanical features embodied in National-Chapman Elevating Trucks, also a table showing the various sizes and capacities. Platform dimensions are shown on page 31.



D Model

THE only structural difference between the National-Chapman Elevating Truck, D Model, and the Standard Model is in the width of the truck at the front. On the D Model this width is uniformly 17 inches, regardless of changing rear widths. On the Standard Model the front width is always the same as the rear width. As on the Standard Model, the D Model has the head construction which enables the front wheels to turn in a complete circle if desired, a great convenience when the truck is working in narrow aisles.

The method of frame construction on the D Model has effected certain economies in manufacturing so that there is a slight modification in the price on some sizes, as compared with the Standard Model.

The D Model is made in seven sizes and capacities. These are identical with the sizes and capacities of Standard sizes of the following numbers: Nos. 4, 4A, 5, 6, 6A, 7 and 8, which are shown in the table on page 30. Platform dimensions are shown on page 31.

National-Chapman Scale-Elevating Truck

THIS is a complete National-Chapman Elevating Truck, into which is built an accurate National Beam Scale.

In Shipping, Receiving, Stock or Store Rooms the National-Chapman Scale-Elevating Truck not only transfers and stores raw material or merchandise with great speed and labor saving economy, but it completely eliminates the necessity of transferring loads to separate scales for weighing.

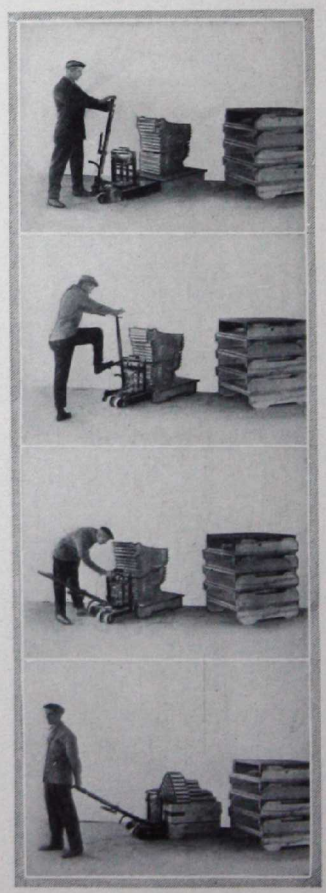
Material loaded on wooden skids can be accurately weighed *while resting on the truck* and gross, net and tare weights quickly determined.

The Scale-Elevating Truck is equipped with a safety handle release in addition to the "kick off" lever, and a powerful hydraulic check, which automatically lowers the heaviest load without a jar. Hyatt Roller Bearings are used throughout. Axles are heat treated.

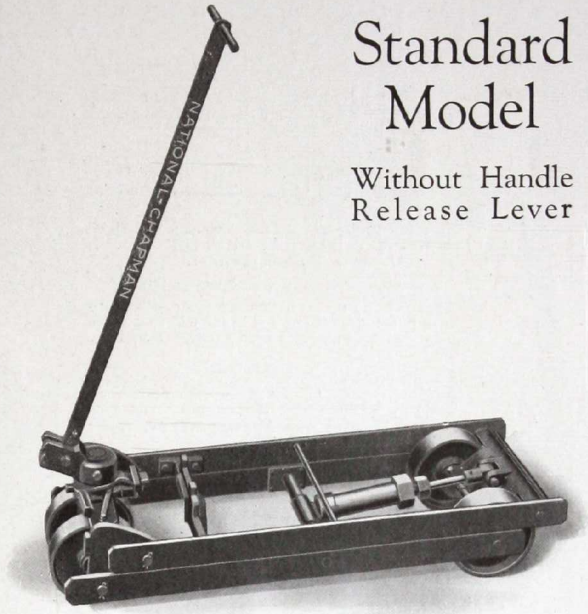
When transporting material, the loaded platform is supported on a special set of side bars, so that there is no strain on the scale mechanism.

The Scale-Elevating Truck is built in seven regular sizes, known as Nos. 1–1B–2–3–5–6A and 8. The dimensions and capacities of each are identical with those of the Standard Elevating Trucks of corresponding number. See table on page 30. Approximate shipping weights: — No. 1, 400 lbs.; No. 1B, 450 lbs.; No. 2, 500 lbs.; No. 3, 550 lbs.; No. 5, 650 lbs.; No. 6A, 700 lbs.; No. 8, 800 lbs.

For Platform Dimensions see Page 31



THE Handle Release Lever, by a pressure of the hands exerted at the extreme end of the handle bar, unlocks the check, thus causing the load to descend to the floor. The Standard Model National-Chapman Elevating Truck is equipped with both the Handle Release Lever and a "Kick Off" lever. The latter may be seen on the illustration, immediately over the right front wheel. Standard Model Trucks are furnished with or without the Handle Release Lever, as desired.

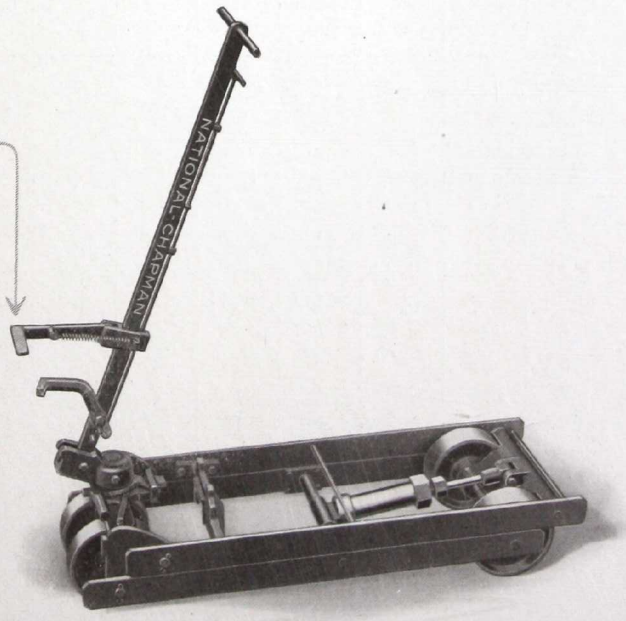


Standard Model

Without Handle Release Lever

THE GIANT LIFT

THE "Giant" Lift increases leverage 50% or more and is found extremely convenient and useful. It is furnished as standard equipment on all National-Chapman Elevating Trucks except Nos. 1 and 4. When not in use the "Giant" Lift is folded against the handle.



SPECIAL MECHANICAL FEATURES

1—Wheels are equipped with Hyatt Roller Bearings, insuring permanent ease of haulage under heaviest loads.

2—Heat-treated axles.

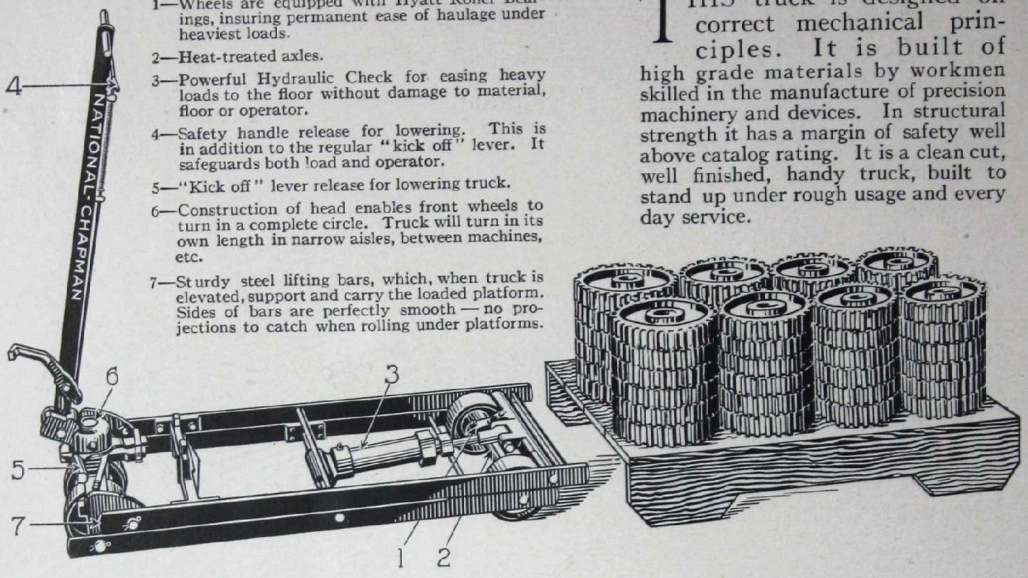
3—Powerful Hydraulic Check for easing heavy loads to the floor without damage to material, floor or operator.

4—Safety handle release for lowering. This is in addition to the regular "kick off" lever. It safeguards both load and operator.

5—"Kick off" lever release for lowering truck.

6—Construction of head enables front wheels to turn in a complete circle. Truck will turn in its own length in narrow aisles, between machines, etc.

7—Sturdy steel lifting bars, which, when truck is elevated, support and carry the loaded platform. Sides of bars are perfectly smooth — no projections to catch when rolling under platforms.



THIS truck is designed on correct mechanical principles. It is built of high grade materials by workmen skilled in the manufacture of precision machinery and devices. In structural strength it has a margin of safety well above catalog rating. It is a clean cut, well finished, handy truck, built to stand up under rough usage and every day service.

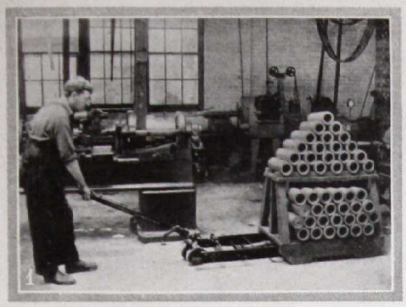
SIZES, DIMENSIONS AND CAPACITIES OF ALL NATIONAL-CHAPMAN ELEVATING TRUCKS

Sizes	Extreme Length Raised Position	Extreme Width of Truck	Length Skid-stop to Rear	Height of Truck Raised	Height of Truck Lowered	Wheels	Width of Front Wheels	Width of Rear Wheels	Clearance SideBars from Floor	Capacity	Shipping Weight of Trucks
1	50″	17″	37½″	7⅝″	6″	6″	2″	2⅜″	2⅛″	2,500 lbs.	250 lbs.
1A	50″	17″	37½″	8⅜″	6″	6″	2″	2½″	2¼″	2,500 lbs.	250 lbs.
1B	50″	17″	37½″	7⅝″	6″	6″	2″	2⅜″	2⅛″	4,000 lbs.	275 lbs.
2	50″	17″	37½″	8⅞″	7″	7″	2¼″	2¾″	2½″	3,500 lbs.	297 lbs.
3	51″	17″	37½″	11¼″	9″	9″	2″	2½″	3¼″	2,000 lbs.	356 lbs.
4	50″	24″	37½″	7⅝″	6″	6″	2″	2½″	2⅛″	2,500 lbs.	310 lbs.
4A	50″	24″	37½″	8⅜″	6″	6″	2″	2½″	2¼″	2,500 lbs.	310 lbs.
5	50″	24″	37½″	8⅞″	7″	7″	2¼″	2¾″	2½″	3,500 lbs.	339 lbs.
6	51″	24″	37½″	11¼″	9″	9″	2″	2½″	3¼″	2,000 lbs.	410 lbs.
6A	51″	24″	37½″	10⅝″	9″	9″	2″	2½″	4⅞″	4,000 lbs.	415 lbs.
7	50″	30″	37½″	8⅞″	7″	7″	2¼″	2¾″	2½″	3,000 lbs.	409 lbs.
8	51″	30″	37½″	10⅝″	9″	9″	2″	2½″	4⅞″	4,000 lbs.	440 lbs.

Note: — National-Chapman Elevating Trucks of 4,000 lbs. capacity, also Nos. 5, 6 and 7 are equipped with two Hydraulic Checks. All other sizes are equipped with one Check.

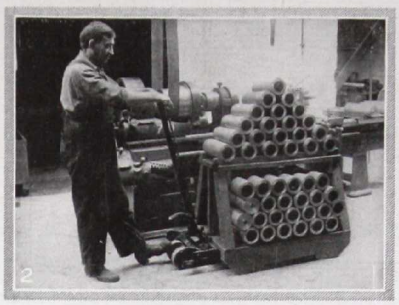
Hyatt Roller Bearings and heat-treated axles are standard equipment in all trucks

For Platform Dimensions See Page 31

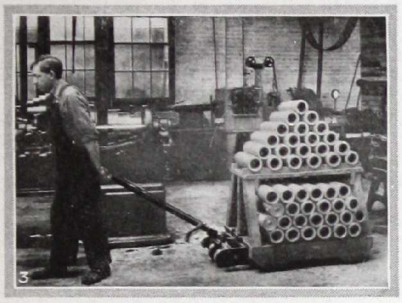


1—Rolling the truck under the loaded platform

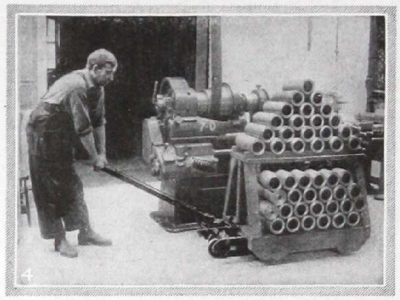
How to Operate National-Chapman Elevating Trucks



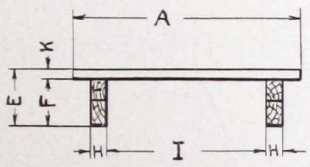
2—Elevating the truck by a downward thrust of the handle

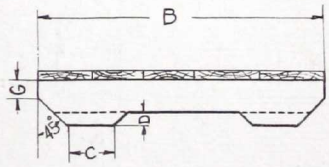


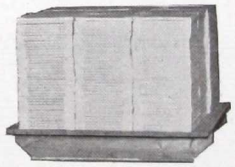
3—An easy haul to destination



4—Lowering the load at destination without effort and without a jar





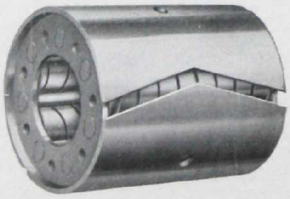


PLATFORM PLAN AND DIMENSIONS IN INCHES

No.	A	B	C	D	E	F	G	H	I	K
1	28	38	6	2	7 5/8	6 3/8	2 1/2	2	20 1/2	1 1/4
1A	28	38	6	2	7 5/8	6 3/8	2 1/2	2	20 1/2	1 1/4
1B	28	38	6	2	7 5/8	6 3/8	2 1/2	2	20 1/2	1 1/4
2	28	38	6	2	8 5/8	7 3/8	3 1/2	2	20 1/2	1 1/4
3	28	38	6	2	10 5/8	9 3/8	4 1/2	2	20 1/2	1 1/4
4	35	38	6	2	7 3/4	6 3/8	2 1/2	2	27 1/2	1 3/8
4A	35	38	6	2	7 3/4	6 3/8	2 1/2	2	27 1/2	1 3/8
5	35	38	6	2	8 3/4	7 3/8	3 1/2	2	27 1/2	1 3/8
6	35	38	6	2	10 3/4	9 3/8	4 1/2	2	27 1/2	1 3/8
6A	35	38	6	2	10 3/4	9 3/8	4 1/2	2	27 1/2	1 3/8
7	41	38	6	2	8 7/8	7 3/8	3 1/2	2 1/4	33 1/2	1 1/2
8	41	38	6	2	10 7/8	9 3/8	4 1/2	2 1/4	33 1/2	1 1/2

THE platform dimensions given are neither maximum nor minimum sizes, but can be varied to suit individual requirements.

Up-to-the-minute shop trucking. A heavy load on a National-Chapman Elevating Truck. Wasson Piston Ring Co., New Brunswick, N. J.



Hyatt
Roller
Bearing

RELATION OF BEARINGS TO TRUCKING EFFICIENCY

ONE of the primary essentials in a high grade elevating truck is that it shall move heaviest loads under the easy control of one man. This necessitated the best bearings obtainable for use in National-Chapman Elevating Trucks—Hyatt Anti-Friction Roller Bearings.

These bearings are thoroughly adapted to the work, being most rugged in construction and requiring only infrequent oiling. They stand up under the heaviest strains and continuous service.

A National-Chapman Elevating Truck on duty in a paper warehouse. Union Card & Paper Co., New York City.

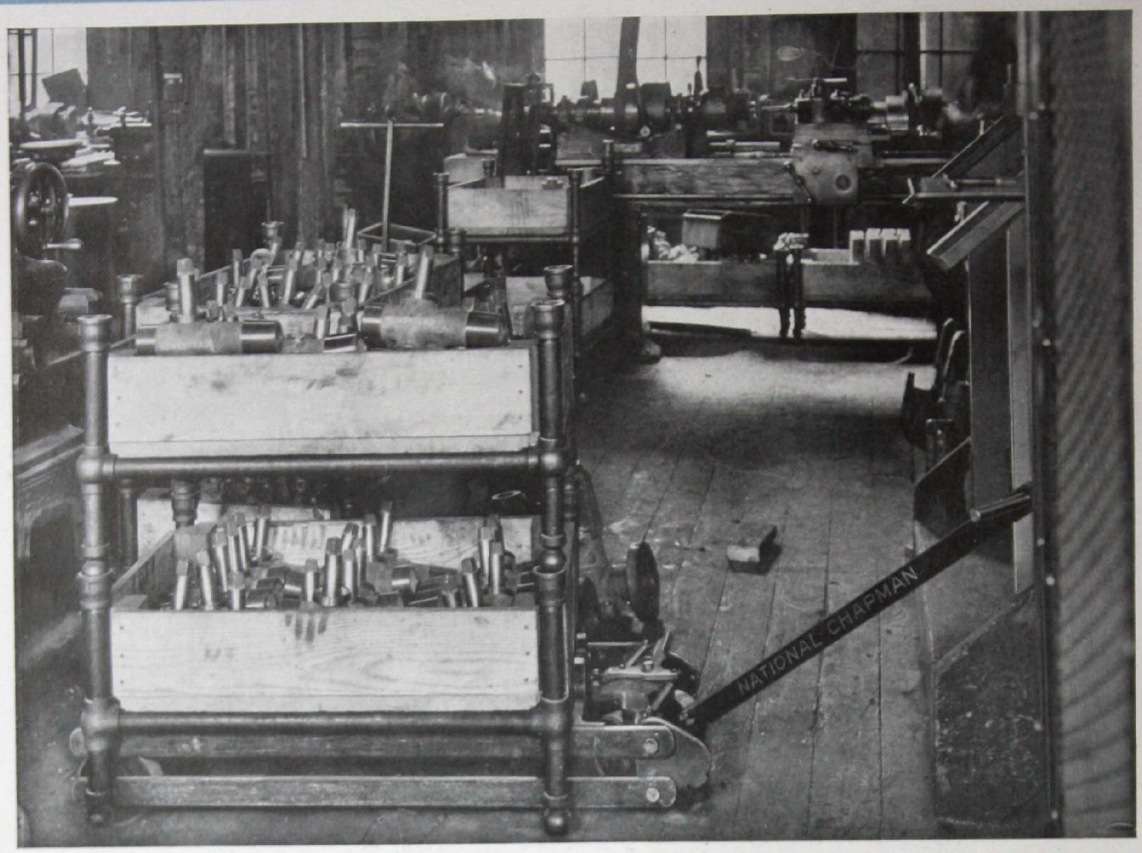
IMPORTANCE OF PROPERLY ROUTED TRUCKING

A STRONG comparison can be drawn between conditions on the modern battle front and conditions in the shop.

The modern battle often is won largely through efficiency of transport behind the lines.

Just so the modern National-Chapman Elevating Truck, with a minimum of manual labor, makes it possible to place material precisely where it is wanted at precisely the time it is wanted, whether it be in receiving, store or shipping rooms or at machines.

The economic advantages of the National-Chapman Elevating Trucking System are apparent even under unfavorable conditions of shop management. It is positively revolutionary, however, in its money saving possibilities where time studies are made of trucking conditions and the number of trucks required in each department is carefully estimated and efficient working routes are established and maintained.



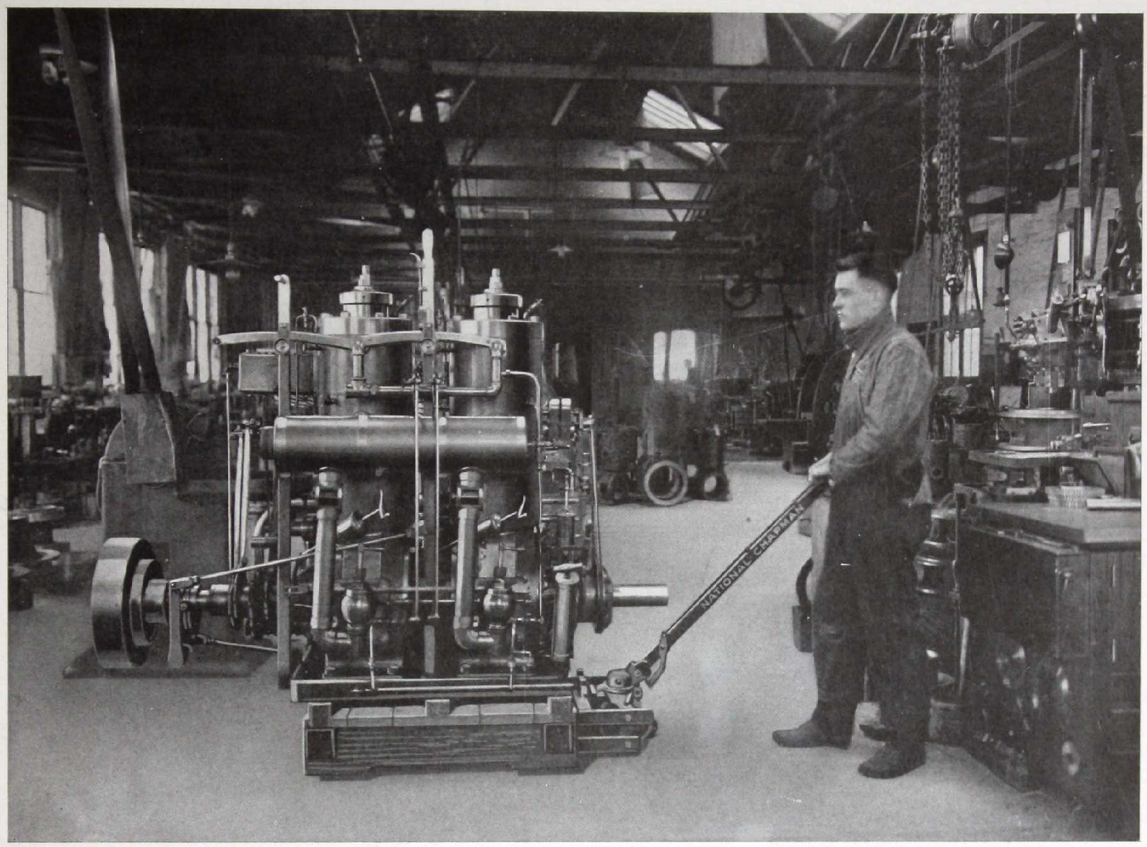
Showing a novel type of container in units which may be pyramided. This efficient handling method is made possible by use of National-Chapman Elevating Trucks. Homestead Valve Mfg. Co., Homestead, Pa.

NEW WAYS OF MAKING SKIDS REDUCE HANDLING COSTS

THE economic practice of keeping material on skids from the time it enters the plant in raw or unfinished condition, through the various processes of machining and finishing, and then into the shipping or storage rooms for final disposal, is the recognized basic theory back of the use of skids and National-Chapman Elevating Trucks.

The skid idea, however, is now developing rapidly in a direct application to the speeding up of production.

Skids in the form of specially contrived boxes, bin sections, crates, racks, tables, etc., machine high or otherwise, are lessening the number of time consuming motions in handling material on the machines.



Marine Gas Engines are assembled and tested on heavy wooden skids that are made to fit National-Chapman Elevating Trucks. Kablenberg Bros. Co., Two Rivers, Wis.

The skid conveyers also provide a means whereby the position of all pieces of material carried can be standardized, and properly placed after each operation, ready for the next operation.

Especially designed skids are also saving time in assembling and finishing. The various parts of heavy machinery are assembled and set up on skids, and tested and shipped on the same skid, always in a position to be transported at will by the elevating truck.

Some manufacturers are now shipping goods on skids and having them removed from cars at destination by elevating trucks. A method which saves labor and decreases breakage.

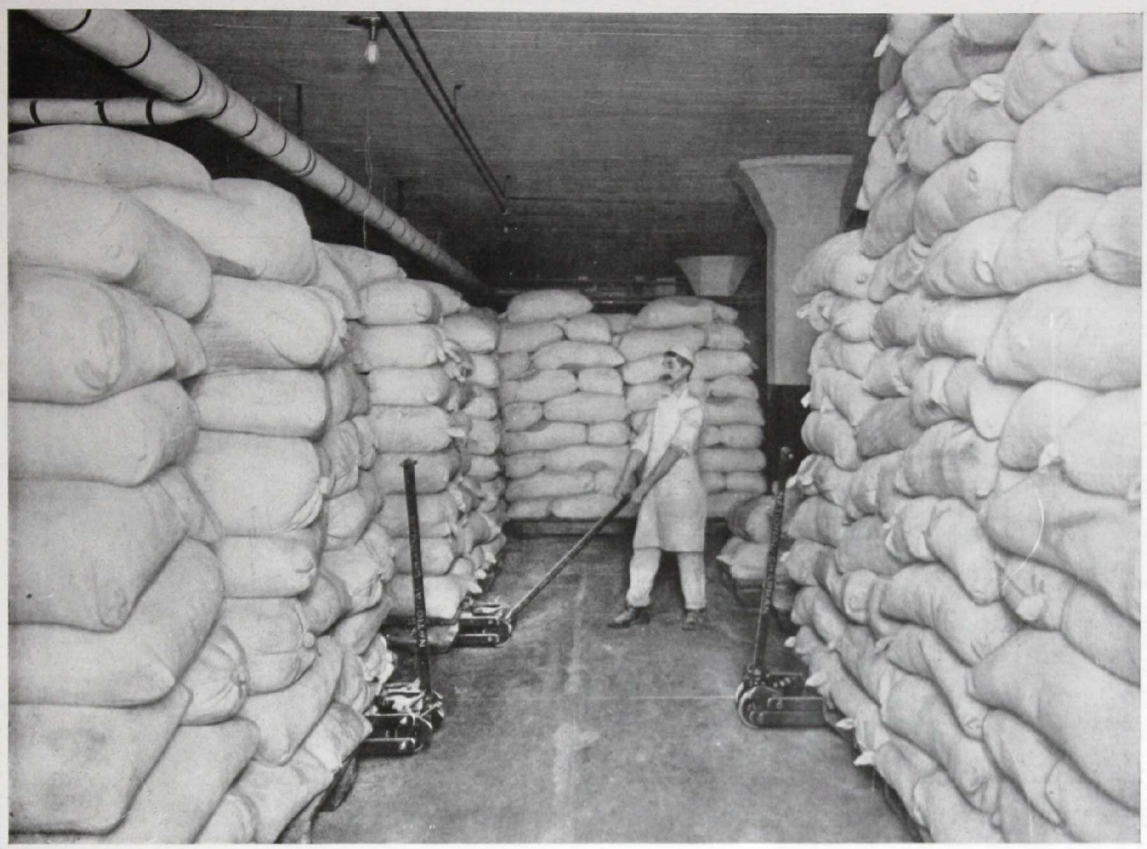
The possibilities for money saving use of the National-Chapman Elevating Truck, with its skid system, is receiving more and more attention from manufacturers in every line of business. These trucks are an economic necessity.

A National-Chapman in the shipping room. All goods on skids, ready for instant transportation. Also note the No. 98 National Counting Machine at work. Pyrene Mfg. Co., New York City.

A FEW AMONG HUNDREDS OF INSTALLATIONS

	No. of Trucks
American Writing Paper Co., Holyoke, Mass.	51
Armour & Co., Chicago, Ill.	10
Ashcroft Mfg. Co., Bridgeport, Conn.	13
The Baldwin Locomotive Works, Inc., Philadelphia, Pa.	85
Bethlehem Steel Co., South Bethlehem, Pa.	9
Billings & Spencer Co., Hartford, Conn.	9
E. W. Bliss Co., Inc., Brooklyn, N. Y.	141
Boston Woven Hose & Rubber Co., East Cambridge, Mass.	16
British Munitions Co., Verdun, Canada	37
Brown-Lipe-Chapin Co., Syracuse, N. Y.	15
Brown & Sharpe Mfg. Co., Providence, R. I.	14
Buick Motor Co., Flint, Mich.	34
Crucible Steel Co. of America, Harrison, N. J.	16
East Jersey Pipe Corporation, Paterson, N. J.	18
Eddystone Ammunition Corp., Eddystone, Pa.	13
Electric Auto Lite Co., Toledo, Ohio	10
Endicott, Johnson & Co., Johnson City, N. Y.	15
Fairbanks, Morse & Co., Inc., Beloit, Wis.	20
Fisk Rubber Co., Chicopee Falls, Mass.	106
Firestone Tire & Rubber Co., Akron, Ohio	17
H. H. Franklin Mfg. Co., Syracuse, N. Y.	61

	No. of Trucks
General Electric Co., West Lynn, Mass.	32
Erie, Pa.	19
Pittsfield, Mass.	18
Schenectady, N. Y.	27
General Vehicle Co., Long Island City, N. Y.	18
Hyatt Roller Bearing Co., Harrison, N. J.	41
Ingram-Richardson Mfg. Co., Beaver Falls, Pa.	11
International Harvester Co. of Auburn, N. Y.	14
James Mfg. Co., Fort Atkinson, Wis.	11
King Sewing Machine Co., Buffalo, N. Y.	11
Midvale Steel Co., Philadelphia Pa.	24
Mount Hope Finishing Co., No. Dighton, Mass.	10
N. E. Westinghouse Co., Chicopee Falls, Mass.	47
Pierce-Arrow Motor Car Co., Buffalo, N. Y.	45
Russell, Burdsall & Ward Bolt & Nut Co., Port Chester, N. Y.	29
Standard Steel Works Co., Burnham, Pa.	31
Thurlow Steel Works, Inc., Elizabeth, N. J.	11
Traylor Engineering & Mfg. Co., Allentown, Pa.	16
U. S. Envelope Co., Springfield, Mass.	10
Weston-Mott Co., Flint, Mich.	41
Whitney Mfg. Co., Hartford, Conn.	10
The Willys-Overland Co., Toledo, Ohio	89
Elyria, Ohio	17



Efficient storage of flour on skids in a modern bakery — and National-Chapman Elevating Trucks to move the loads. Drake Bros. Co., Brooklyn, N. Y.

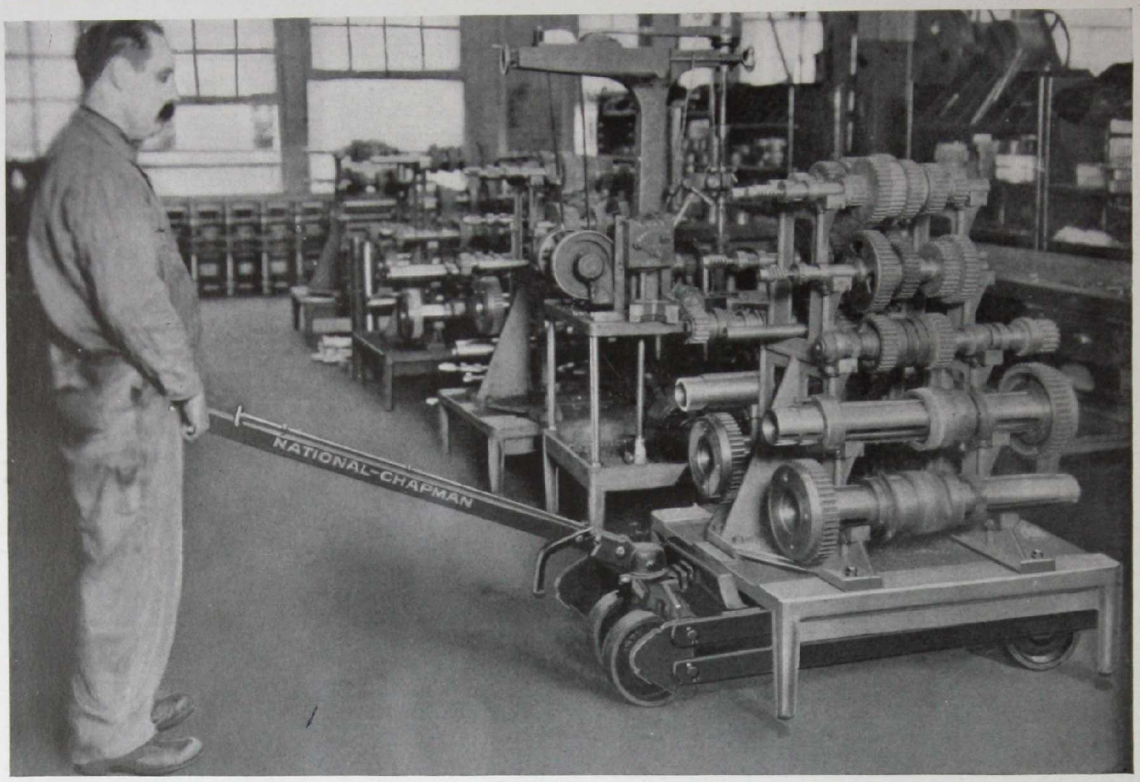
GUARANTEE

NATIONAL-CHAPMAN ELEVATING TRUCKS are guaranteed for ONE YEAR from DATE of purchase against flaws in material and imperfections in workmanship, and we will replace WITHOUT CHARGE any defective parts, which may be returned to us within said period.

NATIONAL SCALE COMPANY

All Shipments of Trucks made
F. O. B. CHICOPEE FALLS, MASS.

NATIONAL-CHAPMAN ELEVATING TRUCKS



Two photographs showing interesting types of special carriers in the plant of Jones & Lamson Machine Co., Springfield, Vt.—a time saving system of handling material made possible by National-Chapman Elevating Trucks.